Iowa Conservation Showcase

Hinton Hog Farmer Adds Circular Manure Storage

Manure spilling onto cropland, years of dealing with messy liquid manure and striving to be a good neighbor prompted Hinton, Iowa, farmer Allen Binneboese to find a better way to store manure for his 360-head hog finishing operation.

Allen Binneboese

After reading about manure storage facilities in a farm magazine, Binneboese contacted his local USDA Natural Resources Conservation Service (NRCS) office in LeMars to learn more. He found he could receive cost-share through the **Environmental Quality Incentives Program (EQIP)** to install such a structure.

In 2002, Binneboese signed an EQIP contract for a circular concrete manure storage structure. A circular concrete manure storage system allows manure to be temporarily stored, without risk of leaching or runoff, until the operator is ready to use it as fertilizer.

EQIP is a voluntary USDA program administered by the NRCS. It offers financial and technical assistance to install or implement structural and management practices on eligible agricultural land.

The circular concrete manure storage structure was constructed on Binneboese's farm in 2005. "Before I installed the storage structure, manure was spilling into a

The manure storage system has the capacity to hold 200,000 gallons of manure per year..

NRCS Natural Resources Conservation Service

drainageway," he said. "It would make a mess out in the field, to the point where there was too much nitrogen and nutrients in the field to farm it."

Binneboese said he now has a lot less trouble handling the manure. "I keep the nutrients here and the neighbors happy."

The new manure storage structure also helps Binneboese save money. He is able to use manure to apply more of his crop's nutrient requirements than he could before. "I don't have to buy phosphorus or potash," he said. Binneboese can apply approximately 200,000 gallons of manure per year from his manure storage to his 470 acres of cropland.

"[The new storage] saves me time and makes me more efficient," said Binneboese. "Before, it was a problem in that manure was running here and there. It was just hard to handle, whereas now the manure is easier to work with in every way."

Binneboese Tests Own Soil

To save even more money, Binneboese completes his own soil testing. He and a partner have done this for three years, taking a soil probe for every soil type or every ten acres, whichever comes first. "We have the soil tests processed at Iowa State," he said. "We have been very satisfied with the results."

Binneboese said soil tests show he can apply less phosphorus and potash than he was applying before. "I found out the P and K levels were higher in the field than I thought," he said. "I needed to use a lot less of it. In fact, I discontinued P and K applications the last two years on all my corn acres."

Binneboese's waste management system was completed in 2005. It is not only environmentally-friendly, but it has saved Binneboese time and money.

Stewardship Success

Binneboese has farmed for more than 30 years. He lives in the house where he was raised, and farms the same ground his father worked in the 1950s. Because of leaching and soil erosion, he said corn would only get about knee high in many spots. Since then, Binneboese has adopted several conservation practices to reduce soil erosion, keep water sources clean and restore soil quality.

Plymouth County District Conservationist Jim Lahn said Binneboese has taken a lot of conservation steps throughout the years. "Along with the manure storage facility, Allen follows nutrient and pest management plans. He's installed terraces, worked in crop rotations to include oats, and now he uses no-till farming," said Lahn.

When diesel fuel prices went over $2 per gallon, Binneboese tried no-till for the first time. "I saved so many trips, including two diskings and a field cultivator. That's three trips before the planter," he said. "Plus, I saved on time running the machinery."

Binneboese said he saw no drop in yield with no-till. "I didn't see any loss with no-till. My yields were comparable to my neighbor's, who does a lot of tillage," he said. "No-till is so good for conserving the soil. You hold a lot more water. No-till helps build up the soil for the next generation–somebody's going to want to eat 10, 20, 50, 100 years from now."

Trying new conservation practices has been a fun experience for Binneboese. "It's helped my yields increase and it's better for the soil, water and environment," he said. "I don't like to see pollutants end up in the Gulf. We need to protect and keep our aquifers clean, so we can use them for the next generation."

Jason Johnson, Iowa NRCS
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